CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. _____

WASTE DISCHARGE REQUIREMENTS
FOR
WECO AEROSPACE SYSTEMS, INC.
GROUNDWATER TREATMENT AND DISPOSAL SYSTEM
PLACER COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Regional Board) finds that:

Weco Aerospace Systems, Inc. (hereafter Discharger) submitted a Report of Waste Discharge dated 16 March 2005, for a proposed groundwater treatment and disposal facility at its Lincoln City manufacturing facility (hereafter referred to as Site) at 1020 Airport Road, Lincoln. The Site consists of a single lot that is part of an industrial subdivision within the Lincoln City limits. The Site is occupied by two buildings, one that is approximately 9,200 square feet and another that is less than 1,000 square feet in area.

The groundwater treatment facility and discharge points are proposed to be located on the Site, across the access road, immediately to the south of the Site buildings. The Site is Assessor's Parcel Number 021-059-011 at township 12N, range 6E, section 7, Latitude 38.9118 and Longitude 121.3574, as shown on Attachment A, which is attached hereto and made part of these Waste Discharge Requirements, hereafter referred to as Order, by reference.

BACKGROUND

1. The Discharger owns and operates a business at the Site that consists of manufacturing and repairing various pieces of equipment and instruments that are used in the aerospace industry. Some of the equipment consists of electronic boards and devices that must be absolutely clean. Past waste disposal from the manufacturing process discharged to on-site leach lines is believed to be the main cause of groundwater contamination detected at the Site. The leach lines are no longer being used for waste disposal. The discharger has eliminated the floor drain in the cleanup room. All waste from the manufacturing process is placed in containers and is disposed of off-site to an appropriate disposal facility. On-site dry wells located along the south side of the Site are currently used for domestic wastewater disposal. An on-site domestic water supply well that serves the Site buildings is located along the southern boundary of the lot.

2. In September of 2001, tetrachloroethene (PCE), 1,2-dichloroethane (1,2-DCA), chloroform and methyl-tert-butyl-ether (MTBE) were detected in a groundwater sample collected near the formerly used leach lines during an environmental assessment. None of those compounds were detected in soil. The on-site domestic water supply well was then sampled and found to

contain only low levels of toluene. Between October 2001 and December 2002, the discharger conducted three phases of investigation to assess the extent of groundwater pollution at the Site resulting in the installation of five groundwater monitoring wells.

3. Groundwater has been measured at depths from 40 to 50 feet below ground surface since monitoring wells were first installed in June 2002. Aquifer tests were conducted and monitoring wells were sampled regularly beginning in 2002 to further evaluate groundwater conditions in the water table aquifer and to determine the potential for impacts to the on-site water supply well. Results indicated the direction of groundwater flow to be predominantly to the southwest. Data suggests that groundwater flows toward the domestic supply well and pumping of the domestic supply well includes water being drawn down from the water table aquifer.

4. During the Second Quarter 2003, the Discharger began taking steps to determine the potential for water to be pumped from one of the monitoring wells as an interim protective measure to prevent impact to the on-site supply well. A granular activated carbon filter was installed as a precautionary measure to treat water being supplied by the onsite water supply well. In February 2004, the discharger conducted pumping tests that showed the monitoring well was not suitable for use as an extraction well. The Discharger submitted a July 2004 *Remedial Action Work Plan* to propose groundwater remediation at the Site, including intercepting and treating groundwater to prevent it from reaching the domestic supply well.

5. The primary contaminants of concern at the Site are volatile organic constituents (VOCs) including 1,2, DCA, PCE, and the fuel oxygenate MTBE. The highest concentrations of VOCs (1,2 DCA at 48 µg/l and PCE at 4.0 µg/l) were detected in ground water samples collected in October 2001 from initial investigation boreholes GP-1 and GP-2 located immediately upgradient and downgradient, respectively, of the main suspected source area, the formerly used leach lines. Additional VOCs, including chloroform, cis-1,2-Dichloroethene (DCE), and trichloroethane (TCE) have historically been detected infrequently in monitoring wells at low concentrations. MW-3 is located immediately upgradient of the on-site water supply well, as shown on Attachment B, which is attached hereto and made part of this Order by reference. The highest concentrations of all constituents of concern are currently detected in MW-3 and MW-5. The concentrations of 1,2-DCA PCE, MTBE in MW-3 and MW-5 have remained relatively stable and slightly declined since June 2002. The Discharger may be required to further evaluate the extent of VOCs in groundwater detected in the area of MW-5 after additional samples from this newest monitoring well are analyzed.

PROPOSED REMEDIATION PROJECT

6. The Discharger proposes to extract and treat impacted groundwater with granular activated carbon and discharge the treated water to land. Approximately six gallons per minute of groundwater will be extracted initially from one extraction well. The Report of Waste Discharge characterizes

estimated influent concentrations at less than 6 micrograms per liter (µg/l) 1,2 DCA , less than 1 µg/l PCE, less than 1 µg/l TCE, less than 1 µg/l DCE, less than 1 µg/l Chloroform, and less than 2 µg/l MTBE. Extracted groundwater will be treated with a filter unit, followed by three vessels each containing 200 pounds of liquid phase granular activated carbon, and finally to a discharge holding tank prior to being discharged to land. A HYDROTEK valve will be used to cycle the discharge from the holding tank into four areas of the property. Between each cycle of the discharge pump, the HYDROTEK valve automatically cycles to the next discharge area. Actual discharge to land will be through sprinklers. A berm will be placed around each of the four discharge areas to insure that surface runoff from the discharge areas does not occur. Treatment will achieve levels below discharge requirements for VOCs. (Regional Board staff approved the *Remedial Action Plan* in a letter dated 20 August 2004.) The groundwater extraction and disposal system is shown on Attachment C, which is attached hereto and made part of this Order by reference.

7. The extent of groundwater contamination will be re-evaluated after the groundwater extraction and treatment system has been installed and operated for one year to evaluate system effectiveness. The Site has 5 monitoring wells, which will be sampled regularly to show treatment system effectiveness, the area of hydraulic capture, and cleanup progress. The required constituents and monitoring frequency is detailed in attached Monitoring and Reporting Program (MRP) No. R5-2005-XXXX. The Discharger will continue the sampling program until the constituents monitored in groundwater have been reduced to below agreed upon cleanup goals or have returned to baseline background concentrations.

8. Once the new treatment system is installed, the Discharger will collect samples from the groundwater influent, the treated water leaving the first GAC, and the treated water exiting each subsequent treatment vessel at system startup, after one, four, 12, and 24 hours of operation, weekly for the first month of operation, and monthly thereafter.

REGULATORY CONSIDERATIONS

9. The *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition* (hereafter Basin Plan) designates beneficial uses, establishes water quality objectives (WQOs), contains implementation plans and policies for protecting waters of the basin, and incorporates by reference plans and policies adopted by the State Water Resources Control Board (State Board). Pursuant to Section 13263(a) of the California Water Code, waste discharge requirements must implement the Basin Plan.

10. Surrounding land uses are agricultural, business, and residential.

11. Surface water drainage is to an unnamed seasonal creek and on to various canals which ultimately flow to the Sacramento River. The beneficial uses of the Sacramento River are municipal and domestic supply; agricultural irrigation and stock watering supply; process and service industrial supply; contact recreation; other noncontact recreation; warm and cold

freshwater habitat; warm and cold migration; warm water spawning; wildlife habitat; and navigation.

12. The designated beneficial uses of underlying groundwater are municipal and domestic supply, agricultural supply, and industrial service and process supply.

13. As described in the Basin Plan, groundwater cleanup goals range between background concentrations to the water quality objectives (WQO), unless background for naturally occurring constituents is higher than the WQO, in which case the cleanup goals are the background concentrations. For this site, the background concentrations are the detection limits, since these compounds are not known to be present upgradient of the site. For WQOs that are not maximum contaminant levels, the WQO is the narrative toxicity objective. Numerical limits cited here implement the objective. The following are the WQOs for VOCs:

Constituent	WQO	Reference
Methyl-t-butyl-ether	5 μg/l	California Department of Health Services Secondary MCL
1,2 dichloroethane	0.4 μg/l	California Public Health Goal in Drinking Water
Cis 1,2-dichloroethene	6.0 μg/l	California Department of Health Services Primary MCL
Trichloroethene	0.8 μg/l	California Public Health Goal in Drinking Water
Tetrachloroethene	0.06 μg/l	California Public Health Goal in Drinking Water
Chloroform	1.1 μg/l	Cal/EPA Cancer Potency Factor as a Drinking Water Level*

* One-in-a-million Incremental Cancer Risk Estimate for Drinking Water
MCL Maximum Contaminant Level

14. Effluent limits for the constituents of concern are set at the detection limit, as a technology-based limit, based on the technology utilized by the treatment system to dependably remove VOCs to concentrations that are less that the practical quantitation limits (PQLs) for laboratory analytical methods for these pollutants.

15. State Board Resolution No. 92-49 (hereafter Resolution No. 92-49) requires the Regional Board to require actions for cleanup and abatement of discharges that cause or threaten to cause pollution or nuisance to conform to the provisions of State Board Resolution No. 68-16 (hereafter Resolution No. 68-16) and the Basin Plan. Pursuant to Resolution No. 92-49, the Regional Board shall ensure that dischargers are required to clean up and abate the effects of discharges in a manner that promotes attainment of either background water quality, or if background levels of water quality cannot be restored, the best water quality which is reasonable and which complies with the Basin Plan including applicable WQOs.

16. Section 13267(b) of California Water Code provides that:

In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected

of having discharged or discharging, or who proposes to discharge waste outside of its region that could affect the quality of the waters of the state within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the board requires. The burden, including costs of these reports, shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

The technical reports required by this Order and the attached MRP No. R5-2005-XXXX are necessary to assure compliance with these WDRs. The Discharger owns and operates the facility that discharged the waste subject to this Order.

17. Issuance of this Order is an action to assure the restoration of the environment and is, therefore, exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et seq.), in accordance with Section 15308 and 15330, Title 14, California Code of Regulations (CCR).

18. This discharge is exempt from the requirements of *Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste,* as set forth in Title 27, CCR, Section 20005, et seq. (hereafter Title 27). Section 20090(d) allows exemption for a project to clean up a condition of pollution that resulted from an unauthorized release of waste based on the following:

    a. The cleanup and abatement action is under the direction of a public agency;
    b. Wastes removed from the immediate place of release will be discharged according to the Title 27 regulations; and
    c. The remedial actions intended to contain wastes at the place of release shall implement the Title 27 regulations to the extent feasible.

19. The California Department of Water Resources sets standards for the construction and destruction of groundwater wells, as described in *California Well Standards Bulletin 74-90* (June 1991) and *Water Well Standards: State of California Bulletin 94-81* (December 1981). These standards, and any more stringent standards adopted by the Discharger or county pursuant to California Water Code Section 13801, apply to all monitoring wells.

20. Pursuant to California Water Code Section 13263(g), discharge is a privilege, not a right, and adoption of this Order does not create a vested right to continue the discharge.

21. All the above and the supplemental data and information and details in the attached Information Sheet, which is incorporated by reference herein, were considered in establishing the following conditions of discharge.

22. The Discharger and interested agencies and persons were notified of intent to prescribe WDRs for this discharge and provided with an opportunity for a public hearing and an opportunity to submit

written views and recommendations.

23. In a public meeting, all comments pertaining to the discharge were heard and considered.

IT IS HEREBY ORDERED that pursuant to Sections 13263 and 13267 of the California Water Code, Weco Aerospace Systems Inc., its agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted hereunder, shall comply with the following while conducting the above-described groundwater remediation project.

[Note: Other prohibitions, conditions, definitions, and some methods of determining compliance are contained in the attached "Standard Provisions and Reporting Requirements for Waste Discharge Requirements" dated 1 March 1991, incorporated herein.]

A. Discharge Prohibitions

1. Discharge of treated groundwater to surface waters or surface water drainage is prohibited.

2. Discharge of waste classified as 'hazardous' under Section 2521 of Title 23, CCR, or as 'designated' under Section 13173 of California Water Code, is prohibited.

3. Discharge of treated groundwater at locations or in a manner different from that described in Finding No. 6 is prohibited.

4. Bypass of overflow of untreated or partially treated groundwater is prohibited.

5. Neither the treatment nor the discharge shall cause a nuisance or condition of pollution as defined by the California Water Code, Section 13050.

6. The discharge shall not cause the degradation of any water supply.

7. Full system operation is prohibited until the report required in Provision E.2.a. has been approved by Regional Board staff.

B. Discharge Specifications

1. The Discharger shall operate all systems and equipment to maximize treatment of extracted groundwater and optimize the quality of the discharge.

2. No waste constituent shall be released or discharged, or placed where it will be released or discharged, in a concentration or in a mass that causes violation of the Groundwater Limitations.

3. Prior to beginning full scale operation of the treatment system, consisting of groundwater extraction from one well, treatment with a filter, and three GAC vessels, the Discharger shall comply as follows:

   a. System Check

      Prior to operating the groundwater treatment system with contaminated water, a system check shall be conducted to confirm the proper construction and operation of the treatment system. The following requirements apply to this system check phase.

      i. A conformance inspection shall be conducted to confirm that all equipment, piping, instrumentation, and control system of the interim groundwater remediation system have been installed according to the approved design. Any deficiencies shall be corrected.
      ii. To confirm piping integrity, piping of the collection system, treatment and disposal system shall be pressure tested at 150 percent of the design pressure with potable water. Any leaks shall be repaired.
      iii. All instrumentation, control systems, and equipment shall be inspected for malfunctions. Instrumentation shall be calibrated and operational. All automatic controls, such as shutdown or alarm switches, shall be certified operational. Mechanical equipment such as the transfer pump and air blower will be cycled on and off. Any functional deficiencies shall be corrected.

   b. Prove-out of System

      The following requirements apply to this prove-out of system phase.

      i. The prove-out of system phase shall last a minimum of one month.
      ii. The extraction well shall be pumped for at least one hour to confirm that the pump operates properly.
      iii. All extracted groundwater shall be treated by the groundwater treatment facility and discharged to the holding tank and discharge areas.
      iv. All equipment, instrumentation, and alarm/notification systems shall be inspected throughout the duration of the prove-out and certified operational.
      v. All treatment, transport, and disposal components (including pumping valves, liquid level controllers, pipelines, blowers, flow meters, pressure gauges, etc.) shall be inspected for the initial two weeks after start-up of the system, followed by twice weekly inspections for two weeks, weekly inspections for the next two months, and monthly inspections thereafter.
      vi. The Discharger shall evaluate the ability of the treatment system to meet non-detectable levels for VOCs.
      vii. The operation of the groundwater treatment system shall cease at the end of the prove-out period. The Discharger shall not resume operation of the system until the Board

has reviewed the prove-out of system report (Provision E.2.a) and has authorized operation in writing.

c. Full-Scale Operation

The Discharger shall not initiate the full scale operation of the groundwater treatment system until the Regional Board staff has reviewed the prove-out of system report (Provision E.2.a.) and has concurred with full scale operation of the system. The following requirements apply to this full-scale operations phase.

i. All extracted groundwater shall be treated by the treatment system and discharged to the holding tank and discharge areas.
ii. The discharge of treated groundwater to the holding tank and to the ground surface discharge areas shall not exceed their respective capacities.
iii. The Discharger shall operate the treatment system to maximize VOC removal.
iv. All treatment, transport, and disposal components (including pumping valves, liquid level controllers, pipelines, blowers, flow meters, pressure gauges, etc.) shall be inspected monthly.
v. The system's automatic controls, including the alarm/notification and shutdown systems, shall be tested and certified operational on an annual basis.

4. Prior to discharging treated groundwater to the land surface, potable water shall be discharged to the holding tank and to each discharge area to establish the ground surface area's infiltration capacity. The Discharger shall discharge potable water at 50, 100, and 150 percent of the estimated ground surface area infiltration capacity. The ground surface discharge must continue for a minimum of one hour. All leaks and/or malfunctions observed during the potable water test shall be corrected. The Discharger shall not begin discharging treated groundwater to land until the Regional Board has reviewed the potable-water start up summary report (Provision E.2.c.) and approved the land discharge in writing.

C. Groundwater Limitations

1. The discharge, in combination with other sources, shall not cause underlying groundwater to contain waste constituents in concentrations statistically greater than background water quality.

2. The Discharger shall not cause the groundwater to contain concentrations of chemical constituents, including any by-products of any treatment process, in amounts above background.

D. Effluent Limitations

1. The effluent shall not have a pH of less than 6.5 or greater than 8.4.

2. The discharge of effluent in excess of the following limits is prohibited:

Constituent	Units	30-Day Average	Daily Maximum	Maximum Detection Limit[1]
Methyl-tert-butyl-ether	µg/l	<0.5	1.0	0.5
1,2 dichloroethane	µg/l	<0.5	1.0	0.5
Cis 1,2-dichloroethene	µg/l	<0.5	1.0	0.5
Trichloroethene	µg/l	<0.5	1.0	0.5
Tetrachloroethene	µg/l	<0.5	1.0	0.5
Chloroform	µg/l	<0.5	1.0	0.5
Total Volatile Organic Compounds[2]	µg/l	<0.5	1.0	0.5
Total Petroleum Hydrocarbons	µg/l	<0.5	1.0	0.5

[1] For nondetectable results
[2] Total of all VOCs.

3. If the target constituents are detected above the 30-day average concentration limits in Effluent Limitation D.2., the Discharger shall obtain a confirmation sample within 24 hrs. of receiving the results and cease discharging until it can be confirmed the analytical results of the confirmation sample are below the effluent limits listed above. If an exceedence is confirmed, the Discharger shall replace the carbon in all three GAC vessels and retest within 72 hours of restarting the system which shall occur within 60 days of receipt of the confirmed exceedence. If the results of the retest show compliance with effluent limits, treatment system operations may resume.

E. Provisions

1. The Discharger shall notify Regional Board staff a minimum of two weeks prior to the startup of the treatment system and discharge of treated groundwater.

2. All of the following reports shall be submitted pursuant to Section 13267 of the California Water Code. All technical reports required herein that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code sections 6735, 7835, and 7835.1. To demonstrate compliance with sections 415 and 3065 of Title 16, CCR, all technical reports must contain a statement of the qualifications of the responsible registered professional(s). As required by these laws, completed technical reports must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.

   a. The Discharger shall submit the prove-out of system report for approval at least two weeks prior to the proposed commencement of full-scale operation of the groundwater treatment system. This report shall document compliance with the Discharge Specification B.3.b. In addition, this report shall include a performance evaluation of the groundwater treatment system.

Full-scale operation shall not commence until the Board determines that the proposed system will adequately treat all identified pollutants, comply with waste discharge requirements, and be operated to maximize VOC removal, and that its continued operation is appropriate.

b. The Discharger shall submit a technical report prior to the end of the fourth month of full-scale operation of the treatment system. The report shall include an analysis of the waste characterization data colleted during the first three months of operation, a summary of the data, and a determination if the influent to and/or effluent from the air stripper contains previously unidentified constituents of sufficient magnitude either to pose a threat to water quality and/or to affect the treatment effectiveness of the air stripper. In the event that significant levels of previously unidentified pollutants are detected, the report shall include recommendations on the continued operation of the groundwater treatment system, possible treatment plant modifications, and an assessment of the impacts to the beneficial uses of the receiving water due to the discharge.

c. The Discharger shall submit a potable water start-up summary report as described in Discharge Specification B.4, at least two weeks prior to discharging treated effluent to the ground surface. The report shall include discussion of each test with calculated flow rates and hydrostatic tests.

3. The Discharger shall comply with the attached MRP No. R5-2005-XXXX, which is part of this Order, and any revisions thereto as ordered by the Executive Officer.

4. The Discharger shall comply with the "Standard Provisions and Reporting Requirements for Waste Discharge Requirements," dated 1 March 1991, which are attached hereto and by reference a part of this Order. This attachment and its individual paragraphs are commonly referenced as "Standard Provision(s)."

2. The Discharger shall comply with all conditions of this Order, including timely submittal of technical and monitoring reports as directed by the Executive Officer. Violations may result in enforcement action, including Regional Board or court order requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.

3. The Discharger shall use the best practicable cost-effective control technique(s) currently available to comply with discharge limits specified in this Order.

4. The Discharger shall notify the Regional Board and the DTSC within 24 hours of any unscheduled shutdown of the groundwater treatment system.

5. The Discharger shall report any non-compliance, system shutdown, and/or accidental spill or release of liquid or material verbally to the Regional Board within 24 hours of the spill or

release, and follow-up the verbal notification with written documentation of the spill or release within 14 calendar days of the incident. This documentation shall include the cause of the shutdown or release and the corrective action taken (or proposed to be taken) to restart the system.

6. Prior to any modifications at the Site that would result in material change in the quality or quantity of wastes treated or discharged, or any material change in the location of discharge, the Discharger shall report all pertinent information in writing to the Regional Board for review and approval. WDRs may be revised prior to implementation of any modifications.

7. As described in the Standard Provisions, the Discharger shall report promptly to the Regional Board any material change or proposed change in the character, location, or volume of the discharge.

8. The Discharger shall maintain records of all monitoring information including all calibration and maintenance records, copies of all reports required by this Order, and records of all data used to complete the application for this Order. Records shall be maintained for a minimum of three years from the date of the sample, measurement, or report. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Executive Officer.

9. The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems, which are to be installed by the Discharger when necessary to achieve compliance with the conditions of this Order.

10. While this Order is in effect, and prior to any change in ownership of the Site or management of this operation, the Discharger shall transmit a copy of this Order to the succeeding Owner/Operator, and forward a copy of the transmittal letter and proof of transmittal to the Regional Board. Transfer of privileges granted under this Order are subject to the discretion of the Executive Officer.

11. The Discharger shall allow the Regional Board, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

    a. Enter upon the premises regulated by the Regional Board, or the place where records must be kept under the conditions of this Order;
    b. Have access to and copy, at reasonable times, any records that shall be kept under the conditions of this Order;
    c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and

d. Sample or monitor, at reasonable times, for the purpose of assuring compliance with this Order or as otherwise authorized by the California Water Code, any substances or parameters at this Site.

12. A copy of this Order shall be kept at the discharge facility for reference by operating personnel. Key operating personnel shall be familiar with its contents.

13. The Regional Board will review this Order periodically and will revise requirements when necessary.

I, THOMAS R. PINKOS, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on _____.

_____
THOMAS R. PINKOS, Executive Officer

Attachments
KAB/JSR: 08/17/05